

Application no. 09/581,949
Amendment dated: July 2, 2004
Reply to office action dated: April 5, 2004

Amendments to the Claims

Please cancel claims 5 and 6.

Please add new claims 44-52 as shown below.

Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method for classifying data, the method comprising the steps of:

receiving input data for classification;

defining one or more transformations of the input data;

applying energy minimization to the one or more transforms of the input data;

producing at least a rate of change in energy in response to energy minimization; and

classifying the input data using the rate of change in energy at least the stress rate value.

2. (Original) The method of claim 1 wherein the step of applying energy minimization comprises using individual differences multidimensional scaling applied to the input data.

3. (Original) The method of claim 1 wherein the step of applying energy minimization comprises using a finite element method analysis applied to the input data.

4. (Original) The method of claim 1 wherein the step of applying energy minimization comprises using simulated annealing applied to the input data.

Claims 5-43. (Cancelled)

44. (New) The classification method of claim 1 further comprising the steps of:
producing a change in energy in response to energy minimization; and
classifying the input data using the change in energy.

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45. (New) The classification method of claim 1 further comprising the steps of:
producing a minimum energy in response to energy minimization; and
classifying the input data using the minimum energy.

46. (New) A method for classifying data, the method comprising the steps of:
receiving input data for classification;
creating a plurality of data structures from the received input data;
applying least energy merging to the plurality of data structures;
producing at least a change in energy in response to the least energy merging of the
plurality of data structures; and
classifying the input data using at least the change in energy.

47. (New) The method of claim 46 wherein the step of applying least energy merging to
the plurality of data structures comprises using individual differences multidimensional scaling
applied to the plurality of data structures.

48. (New) The method of claim 46 wherein the step of applying least energy merging to
the plurality of data structures comprises using a finite element method analysis.

49. (New) The method of claim 46 wherein the step of applying least energy merging to
the plurality of data structures comprises using simulated annealing.

50. (New) The method of claim 46 further comprising the steps of:
producing relative deformations from the least energy merged plurality of data structures;
and
using the relative deformations to classify the input data.

51. (New) The method of claim 50 further comprising the steps of

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producing a classification space output from the relative deformations of the least energy merged plurality of data structures; and
classifying the input data using the classification space output.

52. (New) The method of claim 46 further comprising the steps of:

producing a least energy merged configuration from the least energy merging of the plurality of data structures;
producing relative deformations of the plurality of data structures from the least energy merged configuration; and
classifying the input data using the relative deformations from the least energy merged configuration.